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Sent: Friday, January 30, 2009 3:56 PM
To: Filings@psc.state.fl.us
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Subject: JEA's Update of its Long Term Energy Emergency Plan
Attachments: JEA Long Term Energy Emergency Plan Update.pdf

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1/30/2009

FPSC-COMMISSION CLERK

January 30, 2009

Office of the Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

**RE: 25-6.0185 Electric Utility Procedures for Long-Term Energy Emergencies
Submitted Electronically**

Dear Sir or Madame:

Pursuant to rules of the Florida Public Service Commission, 25-6.0185, Electric Utility Procedures for Long-Term Energy Emergencies, FAC, JEA hereby submits its utility plan for Long Term Energy Emergencies for the 2009 reporting year. Please note that this filing represents an extensive revision to the plan filed previously and warrants appropriate review. The nature of the revision also made submission of the plan in legislative format (underline/~~strike through~~) impractical.

Please let us know if you have any questions or concerns about our revised plan.

Respectfully submitted,

s/ W. Garry Baker

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FPSC-COMMISSION CLERK

Long Term Fuel Supply Emergency Functional Response Procedure

This procedure addresses activities in response to a long term fuel supply emergency affecting JEA:

- Expedited Emergency Fuel Procurement
- Communication and Coordination
- Waiver of Environmental Restrictions
- Conservation
- Modified Dispatch and Commitment
- Load Management

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Overview

Purpose

A long term fuel supply emergency exists when fuel supplies are decreasing or are anticipated to decrease below a level adequate to meet JEA's customer needs. An fuel supply emergency differs from a short term capacity emergency in that energy emergencies cannot be met over an extended time. The duration is usually measured in weeks or months instead of hours and days. Therefore, the Long Term Fuel Supply Emergency Functional Response Procedure (FRP) was developed to establish a systematic and effective means of anticipating, assessing and responding, to a long term emergency caused by a fuel supply shortage.

This procedure incorporates the following key elements associated with various levels of fuel supply shortages:

- Expedited Emergency Fuel Procurement
- Communication and Coordination
- Waiver of Environmental Restrictions
- Conservation
- Modified Dispatch and Commitment
- Load Management

This procedure coordinates with the Florida Reliability Coordinating Council's (FRCC) Florida Electrical Emergency Contingency Plan – Fuel Supply Element dated November, 1998. The FRCC plan was developed to facilitate coordinated actions among the Florida utilities to handle fuel supply shortages state wide.

Lead

Bulk Power Systems (will serve as Incident Command unless otherwise determined)

Support

Fuel Management Services
Brand Management
Customer Relationships
Environmental Services
CSEP

Outside Agencies

Florida Reliability Coordinating Council (FRCC) - Reliability Assessment Group (RAG)
Executive Office of the Governor
Florida Department of Community Affairs – Division of Emergency Management
Florida Public Service Commission
Local Emergency Operation Centers

Roles and Responsibilities

Bulk Power Systems

- Purchases and Sales of Electrical Energy
- Modified Dispatch and Commitment of Generating Resources
- Load Management

Fuel Management Services

- Maintain adequate fuel supply inventory
- Fuel procurement

Brand Management

- Internal communication
- Public education
- Consumer load conservation education

Environmental Services

- Requests for waiver of environmental restrictions

Customer Relationship

- Coordination with external key stakeholders

CSEP

- EOC notification

Criteria

Inventory of Fuel Resources

Fuel Management Service is responsible for maintaining an adequate fuel inventory to meet customer load and contractual requirements, which recognizes reasonable delays or problems in the delivery or production of fuel. Monthly, quarterly and annual projections of fuel use are performed based on load requirements, generating performance forecasts and contractual requirements in order to project the necessary inventories of coal, petcoke, oil and natural gas. Based on the fuel projections and projected inventories, a potential fuel shortfall may exist for the JEA system.

Bulk Power Operations will perform detailed analysis (load forecasting, production modeling and unit commitment) to update fuel forecast projections and compare to the anticipated fuel inventories over the applicable time period to verify possible shortfall. Final determination of projected fuel requirements and inventories shall initiate a Fuel Supply Alert and/or a Fuel Supply Emergency may exist. Daily analysis (load forecasting, production modeling and unit commitment) will be utilized to update fuel forecast projections and monitor the extent of the fuel supply emergency.

Fuel Supply Alert

A Fuel Supply Alert will exist at any time the following occur:

1. JEA's inventoried fuel supply at a plant site is or anticipates to decrease to less than 30 days, and
2. Alternate fuel supplies are unavailable in sufficient quantities, and
3. Alternate purchase power resources is not projected to be available in sufficient quantities, and
4. Alternate JEA generating resources cannot provide replacement power, and
5. A continued downward trend in item 1 above is anticipated.

Fuel Supply Emergency

A Fuel Supply Emergency will exist at any time the following occur:

1. JEA's inventoried fuel supply at a plant site is or anticipates to decrease to less than 25 days, and
2. Alternate fuel supplies are unavailable in sufficient quantities, and
3. Alternate purchase power resources is not projected to be available in sufficient quantities, and
4. Alternate JEA generating resources cannot provide replacement power, and
6. A continued downward trend in item 1 above is anticipated.

Fuel Supply Alert Actions

Response actions will be initiated after a Fuel Alert is declared. The key elements of a JEA response to a Fuel Supply Alert will include the following actions:

1. Expedited Emergency Fuel Procurement

The Fuel Management will:

- Expedite fuel procurement for JEA generating stations.
- Locate and acquire any fuel of the proper quality, which meets environmental and operation constraints.
- Investigate all fuel supply sources, including fuel from other utilities.

2. Modified Dispatch and Commitment

Bulk Power Systems may implement a modification of system operations:

- Review of maintenance schedules of JEA's generation fleet
- Review of power purchases
- Review of non-firm power sales
- Review of unit dispatch and commitment plans
- Review on how to optimize the use of obtainable fuels

Fuel Supply Emergency Actions

Response actions will be initiated after a Fuel Supply Emergency is declared. The key elements of a JEA response to a Fuel Supply Emergency will include the following actions.

1. Expedited Emergency Fuel Procurement

The Fuel Management Services Group will:

- Expedite fuel procurement for JEA generating stations.
- Locate and acquire any oil of the proper quality, which meets environmental and operation constraints.
- Investigate all fuel supply sources, including fuel from other utilities.

2. Communication and Coordination

Brand Management shall be responsible for:

- Internal JEA employee communications
- External communications with media and customers
- External communication with governmental agencies

Customer Relationships will be responsible for:

- External communication with major customers and key account customers

Please refer to the **Public Information** and **Customer Relations Functional Response Plan** for additional guidance.

The Director, Bulk Power Systems is responsible for providing daily updates to the Vice President, Electric Systems and FRCC.

The Vice President, Electric Systems, is responsible for providing daily operational updates to JEA's Executive Management Team.

CSEP will coordinate planning meetings with key departments. Refer to **Planning FRP**.

3. Waiver of Environmental Restrictions

JEA may need to burn any available fuels that may not meet environmental constraints. The duration of the waiver will depend upon the impact of the disaster.

Environmental Services will:

- Seek approval from the federal and state governments to suspend the State Implementation Plan (SIP) requirements of the Clean Air Act.
- Follow established protocol for request.

4. Conservation

JEA will utilize a variety of conservation and management measures.

Voluntary actions shall include:

- Public education efforts
- Requests to reduce kilowatt-hour usage

Mandatory actions may include bans on:

- Outdoor lighting, safety permitting
- Usage of non-essential hot water
- Heating and cooling during non-usage hours

Details of this process are outlined in the **Public Information and Capacity Shortfall Functional Response Procedures**.

5. Modified Dispatch and Commitment

Bulk Power Systems may implement a modification of system operations:

- Increase in power purchases
- Reduction/elimination in non-firm sales
- Modification of unit dispatch
- Optimize the use of obtainable fuels

6. Load Management

Bulk Power Systems may be forced to implement load management:

- Cancel maintenance outages that help the situation
- Utilize backup generation at JEA facilities including lift stations
- Request help from customer's with backup generation
- Voltage Reduction
- Curtailment and interruption of non-firm Customers
- Declare Force Majeure if contract allows for firm customers
- Load Rotation of firm customer

Notification:

Internal and external notifications will be made in a timely manner.

- VP, Fuels-Purchased Power and Compliance, will notify the Director, Bulk Power Systems, and the EMT of a possible fuel shortage.
- Director, Bulk Power Systems will notify the VP, Electric Systems.
- VP, Electric Systems, will notify the Chair of the FRCC Reliability Assessment Group (RAG) of a JEA Fuel Emergency.
- The Chair, RAG, after consultation and concurrence by the Chair of the FRCC Executive Board, will notify the Florida Public Service Commission (PSC).
- PSC will initiate a Fuel Supply Alert for the State.
- FRCC will notify all utilities
- FRCC will investigate and verify utility-provided fuel supply data.
- The FRCC Executive Board will request that the Governor declare a Fuel Supply Emergency, pursuant to statutory authority.
- FRCC will notify the following agencies of a Fuel Supply Emergency:
 - Executive Office of the Governor
 - Florida Public Service Commission
- CSEP will notify local Emergency Operations Centers to notify them of the situation.

Activation:

After a JEA Fuel Supply Emergency is declared by the JEA CEO or his or her designee, JEA will implement response actions based on the level of Fuel Supply Emergency.

After a Fuel Supply Emergency is declared by the Governor, JEA will implement response actions based on FRCC's Florida Electrical Emergency Contingency Plan – Fuel Supply Shortage Element. These actions line up with Steps A thru E below.

The levels of Fuel Supply Emergencies are categorized by “Steps,” determined by supply level:

- Step A: Fuel supply for 20-25 days
- Step B: Fuel supply for 15-20 days
- Step C: Fuel supply for 10-15 days
- Step D: Fuel supply for 5-10 days
- Step E: Fuel supply for 0-5 days

Please refer to the Appendices 1-5 for specific actions regarding each Fuel Supply Emergency level.

Water/Wastewater Systems

Whenever power outages are anticipated W/WW will work with Bulk Power Operations to determine the impact of outages and coordinate for generator support for facilities where built in generators are not available. W/WW will work with Facilities/DES for refueling of all sites that are running on generator power.

Other Functional Response Plans that may be implemented in conjunction:

- **Customer Relationship FRP**
- **Planning FRP**
- **Public Information FRP**
- **Capacity Shortfall FRP**

Preparedness Activities

Long Term Fuel Supply Emergency FRP Development and Maintenance

The Director, Bulk Power Systems, is responsible for the development and maintenance of this FRP fuel supply emergencies, ensuring that necessary revisions are prepared, coordinated, published, and distributed. The procedure will be reviewed and updates as needed on an annual basis.

Training

Each JEA lead and support department is responsible for annual personnel training for generation fuel shortage activities and operations, as per standard guidelines.

Exercises

CSEP is responsible for annual exercises to provide an opportunity for internal and external departments to learn their roles and responsibilities in relation to this FRP.

F.A.C. Rule 25-6.0185 Electric Utility Procedures for Long-Term Energy Emergencies

Each electric utility in Florida that owns or controls electric generation facilities must have on file with the Public Service Commission a long-term energy emergency plan to establish a systematic and effective means of anticipating, assessing, and responding to a long-term emergency caused by a fuel supply shortage. A long-term utility energy emergency exists when the fuel supplies of an individual utility are decreasing or are anticipated to decrease below a level adequate to provide continuous, uninterrupted service to its customers.

Beginning on January 31, 1999, and every three calendar years thereafter, each utility subject to this rule must notify the Commission in writing that the utility has reviewed its fuel emergency plan.



Appendix 1: Fuel Supply Alert Checklist

FUEL SUPPLY ALERT CHECKLIST		1/1	✓
VP, Fuels-Purchased Power	<input type="checkbox"/> Determine Fuel Projections and Anticipated Fuel Inventories <input type="checkbox"/> Notify the Director of Bulk Power Systems and EMT of a possible fuel emergency.		
Director, Bulk Power Systems	<input type="checkbox"/> Update fuel projections and compare to anticipated fuel inventories <input type="checkbox"/> Compare to anticipated fuel inventories. <input type="checkbox"/> Determine if a Fuel Emergency Exists <input type="checkbox"/> Notify VP, Electric Systems of a Fuel Emergency		
VP, Electric Systems	<input type="checkbox"/> Notify Chair of the FRCC Reliability Assessment Group (RAG) of JEA fuel supply emergency.		
Director, Bulk Power Systems	<input type="checkbox"/> Implement Fuel Alert Actions		
Director, Bulk Power Systems	<input type="checkbox"/> Provide following data to RAG. Calculations will be for each of the next eight (8) calendar weeks following the request : <ul style="list-style-type: none"> • An estimate of JEA's energy source requirements and expected supply availability by type of source • A determination of the remaining days of fuel supply, expressed in terms of Days Burn, by fuel type, considering: <ul style="list-style-type: none"> ○ Current inventory ○ Burn ○ Expected supply availability • Sufficient data to substantiate the previous calculations. 		

Appendix 2: Step A Procedures Checklist

Fuel Supply for 20 to 25 Days

The following measures should be implemented and continued during the duration of the emergency.

STEP A PROCEDURES CHECKLIST		1/1	✓
Fuels-Purchased Power and Compliance	<input type="checkbox"/> Request all suppliers to locate and acquire any fuel of the proper quality, which meets environmental and operational constraints.		
Brand Mgmt	<input type="checkbox"/> Notify JEA employees on fuel shortage situation: <ul style="list-style-type: none"> • Explain why the fuel shortage has occurred • Provide overview JEA Emergency Plan • Define details of fuel supply emergency <input type="checkbox"/> Update the Mayor's Office and President of City Council <input type="checkbox"/> Issue news releases daily: <ul style="list-style-type: none"> • Explain fuel emergency, • Identify corrective actions <input type="checkbox"/> Promote load conservation via news releases: <ul style="list-style-type: none"> • Increase efforts to educate customers in energy conservation and increasing efficiency. 		
VP, Electric Systems	<input type="checkbox"/> Provide a daily update to Executive Management Team.		
Customer Relationships	<input type="checkbox"/> Update external major customers		
CSEP	<input type="checkbox"/> Notify EOC.		
Environmental Services	<input type="checkbox"/> Seek approval to burn available fuels that may not meet environmental and other regulatory constraints: <ul style="list-style-type: none"> • State requirements – State Implementation Plan • Federal requirements – Clean Air Act 		
Facilities/DES	<input type="checkbox"/> Curtail all non-essential use of electrical energy at all JEA-owned facilities. <ul style="list-style-type: none"> • Monitor usage of energy weekly. 		
Bulk Power Systems	<input type="checkbox"/> Implement voltage reduction for peak period. <input type="checkbox"/> Review the maintenance schedule to optimize use of obtainable fuels. <input type="checkbox"/> Discontinue non-firm sales to utilities not participating in the FRCC long-term plan. <input type="checkbox"/> Discontinue non-firm sales from units whose fuel is in short supply. <input type="checkbox"/> Purchase all available power.		

Appendix 3: Step B Procedures Checklist
Fuel Supply for 15-20 Days

STEP B PROCEDURES CHECKLIST		1/1	✓
	Continue all appropriate Step A actions.		
Fuels- Purchased Power and Compliance	<input type="checkbox"/> Solicit suppliers of fuel by phone to determine: <ul style="list-style-type: none"> • types of fuel available for purchase • quantity • delivery time <input type="checkbox"/> Maximize on-site fuel inventory.		
Brand Mgmt	<input type="checkbox"/> Update JEA employees on fuel shortage situation. <input type="checkbox"/> Issue news releases: <ul style="list-style-type: none"> • Updated news statements • Continue conservation message <input type="checkbox"/> Request all customers to reduce non-essential usage: <ul style="list-style-type: none"> • Adjust thermostat 5° lower during warm season, 5° higher during warm season • Discontinue use of: <ul style="list-style-type: none"> ○ Indoor advertising devices, ○ Outdoor displays, ○ Flood lighting (except where essential for safety and security). • Reduce kilowatt-hour usage by at least 15 percent 		
VP, Electric Systems	<input type="checkbox"/> Provide a daily update to Executive Management Team.		
Customer Relationship	<input type="checkbox"/> Update external key stakeholders. <input type="checkbox"/> Update key account customers.		
CSEP	<input type="checkbox"/> Update Emergency Operations Center (EOC).		
CEO	<input type="checkbox"/> Request proper legal authorization for proceeding to Steps C through E.		
Facilities/ DES	<input type="checkbox"/> Reduce energy use by at least 20 percent <input type="checkbox"/> Discontinue the use of lunchrooms and kitchens <input type="checkbox"/> Turn off 25% of exterior lights <input type="checkbox"/> Turn off hot water heaters <input type="checkbox"/> Reset and lock all temperature controls: <ul style="list-style-type: none"> • Air conditioning: 80° • Heating: 65° 		
CEO	<input type="checkbox"/> Request City to order mandatory load conservation: <ul style="list-style-type: none"> • Ban of all nighttime sporting activities • Close of all lighted parks, tennis courts, golf courses, etc. • Eliminate non-essential outdoor advertising lighting • Increase cycle times with controlled water heaters, space heating, swimming pool pumps, and air conditioners to one hour off every four hours 		
Bulk Power Systems	<input type="checkbox"/> Modify unit dispatch to load units with obtainable fuels. <input type="checkbox"/> Cycle units fueled by short supply fuel off line and still allow the same demand and energy output, at a better heat rate and consume less station service. <input type="checkbox"/> Purchase power when it will extend availability of fuel in short supply.		



Appendix 4: Step C Procedures Checklist
Fuel Supply for 10 to 15 Days

STEP C PROCEDURES CHECKLIST		1/1	✓
	Continue all appropriate Step A-B actions.		
Fuels- Purchased Power and Compliance	<input type="checkbox"/> Locate and purchase any fuel available which can be satisfactorily burned.		
VP, Electric Systems	<input type="checkbox"/> Provide a daily update to the CEO and Vice Presidents.		
Customer Relationships	<input type="checkbox"/> Update external key stakeholders. <input type="checkbox"/> Update key account customers.		
CSEP	<input type="checkbox"/> Update Emergency Operations Center (EOC).		
Facilities/DES	<input type="checkbox"/> Coordinate work spaces to maximize air conditioning. <input type="checkbox"/> Turn off at least 50 percent of all exterior lights and <input type="checkbox"/> Discontinue use of non-essential house facilities		
Brand Mgmt	<input type="checkbox"/> Update JEA employees on fuel shortage situation. <input type="checkbox"/> Issue news releases: <ul style="list-style-type: none"> • Updated news statements • Continue announcements telling customers how to conserve electricity. <input type="checkbox"/> Request residential customers to stop use of: <ul style="list-style-type: none"> • Air conditioning • Heating • Water heaters • Washers & dryers • Dishwashers • Other convenience devices and equipment <input type="checkbox"/> Request commercial customers to: <ul style="list-style-type: none"> • Use industrial-owned generation equipment. • Use generation in alternate energy supply • Reset and lock all temperature controls: <ul style="list-style-type: none"> ○ Air conditioning: 80° ○ Heating: 65° • Reduce operating hours • Reduce kW hour usage by 30% • Eliminate window and display lighting 		
CEO	<input type="checkbox"/> Request City to issue a ban air conditioning and heating during non-use hours and in unoccupied areas of commercial establishments.		
Bulk Power Systems	<input type="checkbox"/> Curtail all non-firm load. <input type="checkbox"/> Implement emergency line rating to increase import capability. <input type="checkbox"/> Lower system distribution voltage 2 to 3 %t. <input type="checkbox"/> Reduce firm sales to other utilities to a minimum. <input type="checkbox"/> Purchase power when it will extend availability of fuel in short supply. <input type="checkbox"/> Purchase short-term energy other than peaker energy when it will extend the availability of fuel in short supply		



Appendix 5: Step D Procedures Checklist
Fuel Supply for 5 to 10 Days

STEP D PROCEDURES CHECKLIST		1/1	✓
	Continue all appropriate Step A-C actions.		
Fuels- Purchased Power and Compliance	<input type="checkbox"/> Investigate all possible fuel supply sources.		
Brand Mgmt	<input type="checkbox"/> Describe to JEA employees: <ul style="list-style-type: none"> • Firm load curtailment • Rotating blackouts • Reason for emergency <input type="checkbox"/> Issue news releases: <ul style="list-style-type: none"> • Explain the use of rotating blackouts • What the firm load curtailment customers will experience are • Reasons that load curtailment actions are being taken. <input type="checkbox"/> Request that all commercial customers reduce their kilowatt-hour usage by at least 50 percent.		
VP, Electric Systems	<input type="checkbox"/> Provide a daily update to Executive Management Team.		
Customer Relationships	<input type="checkbox"/> Update external key stakeholders. <input type="checkbox"/> Update key account customers. <input type="checkbox"/> Advise them of load curtailment and its impact on activities.		
Facilities/DES	<input type="checkbox"/> Eliminate all but critical air conditioning and heating (computer and microwave).		
CEO	<input type="checkbox"/> Implement mandatory load curtailment, as legal, to the degree necessary to protect: <ul style="list-style-type: none"> • Public health • Safety • Welfare 		
Bulk Power Systems	<input type="checkbox"/> Reduce firm sales to other utilities to minimum possible levels. <input type="checkbox"/> Purchase any available energy. <input type="checkbox"/> Implement circuit load rotation based Manual Load Shed Procedure. <input type="checkbox"/> Give priority for service to: <ul style="list-style-type: none"> • Essential services • Where no emergency power is available 		



Appendix 6: Step E Procedures Checklist

Fuel Supply for 0 to 5 Days

STEP E PROCEDURES CHECKLIST		1/1	✓
	Continue all appropriate Step A-D actions.		
Brand Mgmt	<input type="checkbox"/> Update JEA employees on fuel shortage situation. <input type="checkbox"/> Issue news releases.		
VP, Electric Systems	<input type="checkbox"/> Provide a daily update to Executive Management Team.		
Customer Relationships	<input type="checkbox"/> Update external key stakeholders. <input type="checkbox"/> Update key account customers. <input type="checkbox"/> Advise them of firm load curtailment and its impact on activities.		
Bulk Power Systems	<input type="checkbox"/> Initiate orderly shutdown of all units burning the fuel in short supply, in the event the fuel supply is exhausted. <input type="checkbox"/> Ensure power availability to all power plants and fuel handling facilities.		